

GROUP DISPERSAL IN HEMPRICH'S HORNBILL *TOCKUS HEMPRICHII*

Robert E. Hegner

Hemprich's Hornbill *Tockus hemprichii* is listed by Williams (1967) as being found as far south as Lake Baringo in Kenya. From January 1977 to May 1979 I lived in Lake Nakuru National Park (main entrance at 0°19'S, 35°05'E), and during that time I repeatedly encountered groups of *T. hemprichii* at the northern end of the Park, near the main entrance. Below, I present evidence for group dispersal and a range extension for this species in Kenya.

I first noted the birds in February 1977, when at least three individuals were moving through a group of *Jacaranda ovalifolia* trees surrounding my house in the northeastern (Baharini) part of the Park. The trees are planted on either side of a small grass and garden compound located at the base of a small, rocky hill. Outside the compound, open grassland merges with bush and wooded scrub vegetation running up the side of the hill. Although *T. hemprichii* is easily identified, I took photographs of these birds, which were used later to confirm my identification.

Birds were seen in groups (of at least 2) in 14 of the 15 sightings in which I recorded group number. Mean group size was 4.9 ± 0.3 birds (calculated from the minimum number of birds sighted). Almost all birds were seen inside the Park, but on three occasions I saw birds in Nakuru town itself, a little less than 4½ km to the west northwest of Baharini. I never observed these birds further south than the Baharini area.

In the 26 months I lived in Nakuru, I sighted birds a total of 16 times. These sightings were concentrated during two parts of the year (Table 1).

TABLE 1

Sightings of Tockus hemprichii in the Nakuru area

Date	No. of birds	Location
1977		
25 Feb	3+	Baharini
16 Aug	4	"
14 Sep	n.r.	"
1978		
17 Aug	12-13	"
16 Sep	6	"
18 Sep	3	"
20 Sep	4	"
23 Sep	14	"
28 Sep	9	"
29 Sep	2+	Town
30 Sep	1+	Baharini
14 Oct	2	"
9 Nov	2	Town
1979		
12 Mar	2+	Baharini
19 Mar	3	"
3 Apr	4+	Town

The bulk of the sightings occurred during August and September, in both 1977 and 1978, with a large influx of birds during the second half of September

1978. In this peak period, mean group size was 5.6 ± 0.7 birds (range 1-4). The second peak occurred from late February to early April, as shown by the sightings in February 1977 and March/April 1979 (Table 1). While I have no records of sightings during February to April 1978, it is possible that many visiting birds were unrecorded. At that time, I was spending almost all my time in the southern part of the Park, so I had little chance to observe any hornbills.

In August 1977, I observed birds eating both large grasshoppers and chamelions, which they captured in the jacaranda trees, but I generally did not record food taken. Groups were very vocal, and certainly members of a group were in visual and auditory contact at all times.

From these records I suggest two things of note. First, it now seems that *T. hemprichii* is a regular visitor to Lake Nakuru National Park, certainly during August/September, and probably also during February to April. It would thus appear that its range can be extended south to the Nakuru area. Second, since the birds I saw were at the edge of their range, it is likely that they were dispersing birds. They visited Nakuru in groups, suggesting that the species exhibits flocking behaviour during dispersal.

Kemp (1976b) reviewed the breeding records of African hornbills. In most species, particularly those in the genus *Tockus*, breeding is correlated with rainy seasons, presumably because more arthropods are available during the rains. The three records of *T. hemprichii* nests (from Ethiopia) show that females seal the nest (i.e. begin to incubate) during March and April. In South Africa, *Tockus* species young fledge about ten weeks after incubation begins (Kemp 1976a,b).

In Nakuru, rainfall is distributed during two main times of the year, the long rains from April to August (often drier in June and July), and the short rains in November and December. If *T. hemprichii* breeds during both seasons, young would fledge about the end of January and the end of June. The appearance of the species in Nakuru occurred about four to eight weeks after these dates, which seems a reasonable time to expect movements of these birds. It thus seems likely that these movements represent post-breeding dispersal of groups of Hemprich's Hornbills. Although I was unable to do so, it would be interesting to determine the age and sex composition of these groups.

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REFERENCES

- KEMP, A.C. 1976a. A study of the ecology, behaviour, and systematics of *Tockus* hornbills. *Transvaal Museum Memoir* No. 20: 1-125.
- 1976b. Factors affecting the onset of breeding in African hornbills. *Proceedings of the International Ornithological Congress* 16: 248-257.
- Robert E. Hegner, *Field of Neurobiology and Behavior, Cornell University, Ithaca, New York 14853, U.S.A.*

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